## AMENDMENTS TO THE CLAIMS

### Listing of claims:

1.    (Original)    A system for a two dimension bar code for synchronous omni-directional information, characterized in that, comprising:

vertical synchronous information units disposed at two of opposing borders in said matrix, wherein the optical characteristics of the neighboring units are different and the units at different borders constitute a pair of vertical synchronous information units;

horizontal information units disposed at another two opposing borders of said matrix, wherein the optical characteristics of the neighboring units are different and the units at different borders constitute a pair of horizontal synchronous information units;

directing information units having a characteristic shape and/or optical characteristic for identifying a scanning direction and having a relative positional relationship with said vertical information synchronous units and horizontal information synchronous units; and

coded information units inside said matrix, wherein the base of each unit is at the nearby to the junction of the central line of a pair of the vertical synchronous information units and the central line of a pair of the horizontal synchronous information units.

2.    (Original)    The system for a two dimension bar code for synchronous omni-directional information according to claim 1, characterized in that, the optical characteristics for each unit is its color attribute and said base is the center of each unit.

3.    (Currently Amended) The system for a two dimension bar code for synchronous omni-directional information according to claim 1 or 2, characterized in that, said vertical synchronous information units and horizontal synchronous information units are all distributed at said matrix border, and said directing information units are at the center of the matrix vertex and the border.

4.    (Original)    The system for a two dimension bar code for synchronous omni-directional information according to claim 3, characterized in that, each of said vertical synchronous information units, horizontal synchronous information units and coded information units is a square, said directing information unit is any one from a rectangle, a square or a circle.

5.    (Original)    A method for identifying a two dimension bar code as claimed in claim 1, characterized in that, the identifying device identifies an input image of said system for a two dimension bar code for synchronous omni-directional information in accordance with the following steps:

(1)    determining its position in the image based on the characteristics and/or optical characteristics of a directing information unit;

(2)    determining a linking line between each pair of the vertical synchronous information units and the horizontal information units based on the specific relative positional relationship of the directing information unit with the vertical synchronous information unit and the horizontal information unit as well as the optic characteristics of the vertical synchronous information unit and the horizontal information unit;

(3)    reading optical characteristic information at the vicinity of the linking line between the centers of said pair of vertical synchronous information units and the intersection between said pair of horizontal synchronous information units; and

(4)    decoding the optical characteristic information at the vicinity of the intersection read by step (3) in accordance with the order identified by the characteristic shape and/or optical characteristics of the directing information unit, so as to recover the coded information.

6.     (Original)     The method for identifying a two dimension bar code according to claim 5, characterized in that, the optical characteristics for each unit is its color attribute and said base is the center of each unit.

7.     (Original)     The method for identifying a two dimension bar code according to claim 5, characterized in that, the optical characteristics for each unit is its fluorescent attribute and said base is the center of each unit.

8.     (Currently Amended) The method for identifying a two dimension bar code according to claim 6 or 7, characterized in that, said vertical synchronous information units and horizontal synchronous information units are all distributed at said matrix border, and said directing information units are at the matrix vertex and the center of the border, the identifier determines the directing information unit at the border center by the directing information unit at neighboring matrix vertex.

9.     (Original)     The method for identifying a two dimension bar code according to claim 8, characterized in that, each of said vertical synchronous information units, horizontal synchronous information units and coded information units is a square, said directing information unit is any one from a rectangle, a square or a circle, said identifier determines a scanning direction through comparing its geometric shape and its position.

10.     (Original)     The method for identifying a two dimension bar code according to claim 9, characterized in that, the base location of the vertical synchronous information units and the horizontal synchronous information units at a border are determined by a border searching algorithm.

11.　(New)　The system for a two dimension bar code for synchronous omni-directional information according to claim 2, characterized in that, said vertical synchronous information units and horizontal synchronous information units are all distributed at said matrix border, and said directing information units are at the center of the matrix vertex and the border.

12.　(New)　The system for a two dimension bar code for synchronous omni-directional information according to claim 11, characterized in that, each of said vertical synchronous information units, horizontal synchronous information units and coded information units is a square, said directing information unit is any one from a rectangle, a square or a circle.

13.　(New)　The method for identifying a two dimension bar code according to claim 7, characterized in that, said vertical synchronous information units and horizontal synchronous information units are all distributed at said matrix border, and said directing information units are at the matrix vertex and the center of the border, the identifier determines the directing information unit at the border center by the directing information unit at neighboring matrix vertex.

14.　(New)　The method for identifying a two dimension bar code according to claim 13, characterized in that, each of said vertical synchronous information units, horizontal synchronous information units and coded information units is a square, said directing information unit is any one from a rectangle, a square or a circle, said identifier determines a scanning direction through comparing its geometric shape and its position.